

SERIES E9

Dynapar™ brand

Miniature Encoder

Key Features

- Super-Compact Modular Encoder for Small Servo and Stepper Motor Feedback
- Integrated ASIC for Enhanced Reliability and Accuracy
- Up to 512 PPR Resolution



SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

Code: Incremental, Optical
Resolution: 100 to 512 PPR (pulses/revolution)
Symmetry: 180° ±18° electrical
Index: 90° ±36° electrical
Quadrature Phasing: 90° ±18° electrical
Phase Sense: A leads B for CW shaft rotation
Format: See chart below (output waveform & connections)

ELECTRICAL

Input Power: 5 VDC ±10%, 10mA, typ.
Output Signals: 2.5 V min. high (V_{OH}); 0.5 V max. low (V_{OL}), 6 mA sink/source (25°C), 4 mA (100°C)

Frequency Response: 200 kHz
Termination: 5 pin header (accessory 12" wires w/connector, part no. CA0050012) or flying leads
Recommended Mating Connector: AMP part number 103675-4

MECHANICAL

Hub Diameter: 1/8", 5/32", 1.5mm ~ 4.0 mm
Hub Dia. Tolerance: +0.0004"/-0.0000" (+0.010 mm/-0.000 mm)
Mating Shaft Length: See table
Mating Shaft Runout: 0.001 TIR
Mating Shaft Endplay: >256 ppr: ±0.003" (±0.076mm); 250, 256 ppr: +0.005/-0.003" (+0.127/-0.076mm); <250 ppr: +0.007/-0.003" (+0.178/-0.076mm)

Moment of Inertia: 0.15 x 10⁻⁵ oz-in-sec² (0.11 gm-cm²)
Housing and Cover: Plastic
Weight: 0.15 oz (4.14 g)

ENVIRONMENTAL

Operating Temperature: -20° to 100°C
Storage Temperature: -50° to 125°C
Humidity: Up to 90% (non-condensing)

OUTPUT WAVEFORMS & CONNECTIONS

Code 4= 00

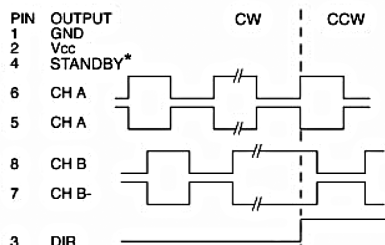


Figure 1

Code 4= 01

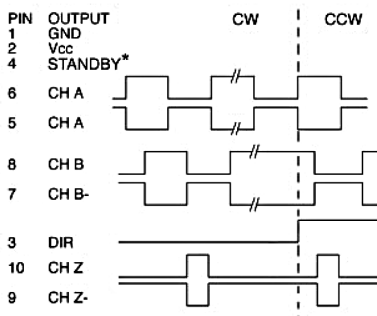


Figure 2

Code 4= 02

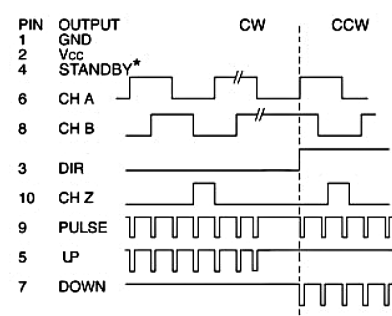
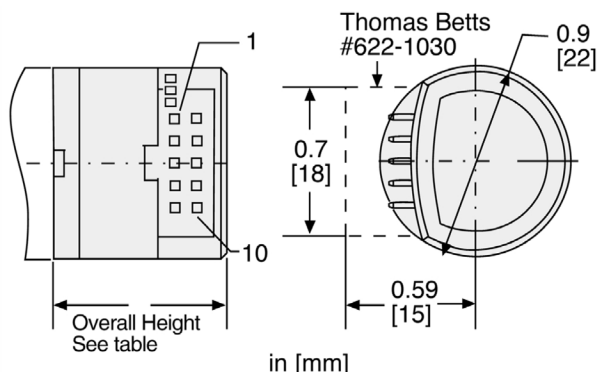


Figure 3

* For operation, connect STANDBY (4) to Vcc (2)

DIMENSIONS/INSTALLATION



IMPORTANT: To properly install Series E9, a specialized mounting kit must be purchased. Only one kit is required to install any number of encoders with the same hub bore size.

Kit Part Number:

MK E9

Code 3 (from Models Table, above) designating Hub Bore requirement.

Example: Kit for installing encoders with 3.0 mm hub Bore= **MK E9 3.0**

Base (Code 3)	Overall Height inch (MM)	Motor Shaft Length inch (MM)	
		Max.	Min
A	0.795 (20.20)	0.479 (12.16)	0.467 (11.86)
C, D, E	0.929 (23.60)	0.613 (15.56)	0.581 (14.76)

Bases C and D provide clearance for motor-bosses with maximum dimensions of 0.5 in. Dia. x 0.15 in. high. Base E provides clearance for motor-bosses with maximum dimensions of 1.0 in. x 0.15 in. high

ORDERING INFORMATION

To order, complete the model number with code numbers from the table below:

Code 1: Model	Code 2: PPR	Code 3: Hub Bore	Description	Code 4: Output	Description	Code 5: Mounting	Description
E9	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/>	
Ordering Information							
E9	0.9" Diameter Incremental Modular Encoder	0100	2.0 2.0 mm	00	See Figure 1	0 No mounting base A 4x M1.6 on 0.728" BC C 2x #2-56 on 0.75" BC D 3x #0-80 on 0.823" BC E 2x #2-56 On 1.812" BC	
		0144	2.5 2.5 mm	01	See Figure 2		
		0200	3.0 3.0 mm	02	See Figure 3		
		0500	4.0 4.0 mm				
		0512	125 0.125 in				
		156	0.156 in				
	Special Order Consult Factory for Lead Time & Price		Special Order Consult Factory for Lead Time & Price				
	0256						
	0300	1.5 1.5 mm					
	0360						



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